

NEW CLAIMS

3. A balun, comprising: four coupled planar lines running next to each other; one end of a first of the lines serving as a first balanced connection gate; the other end of the first line being connected to one end of a second of the lines adjacent to the other end of the first line; the one end of the second line being connected to the first line and serving as an unbalanced connection gate; the other end of the second line being connected to ground; one end of a third of the lines lying next to the unbalanced connection gate and being connected to ground; the other end of the third line serving as a second balanced connection gate; one end of a fourth of the lines lying next to the second balanced connection gate and being connected to ground; and the other end of the fourth line being connected to the one end of the second line forming the unbalanced connection gate.

4. The balun according to claim 3, wherein the four lines have a coupling length which corresponds to roughly one-quarter of an average operating wavelength of the balun.